

A NEW GENUS AND NEW SPECIES OF BEE FLIES

(DIPTERA: BOMBYLIIDAE)

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ABSTRACT—This paper describes a new genus, *Euprepina*, from South America. The type of the genus is *nuda*, new species; also described are the additional new species *shannoni*, *bicineta*, *truxalia*, *knutsoni* and *maracajula* also from South America.

Among recent material that has come to hand, belonging to the family Bombyliidae, I find an interesting new genus from South America, described below.

Euprepina, n. gen.

Densely pilose flies with the abdomen a little more than usually elongate and with a slender proboscis and slender, small labellum. Related to *Sparnopolius* Loew which they resemble in the bare, black and shining, prominent and extended oragenal cup. They differ from that genus in the position of the anterior crossvein which is placed at or beyond the outer third of the discal cell; in *Sparnopolius* Loew this crossvein lies at the basal third or always before the middle of the cell. Also in *Euprepina* there is a dense, long tuft of pile in front of the halter but this space is bare in *Sparnopolius* Loew, which appears to be a Nearctic genus.

Euprepina is found from Rio de Janeiro, Brazil, southward to Uruguay. There are several species, and while these species may possibly be described under some older name, I have not identified them with such, and it seems important to describe them now so that their generic status may be recognized in pending studies.

Length: 10 to 13 mm, excluding proboscis; wing 8 to 10 mm.

Type-species: *Euprepina nuda*, n. sp.

Euprepina nuda, n. sp.

Head: slightly triangular in appearance because of flattened eyes of male, flat front in female, and more especially the triangularly produced and obliquely truncate, or plane oragenal cup. Sides of oragenal cup convex above, sharp and polished like glass, without pile but with pollen on a short area beneath the antenna which is separated from oragenal cup by a crease. Occiput rather thick inwardly, considerably produced in profile, but of flat *Bombylius*-type with small central foramen. Pile of occiput dense and shaggy dorsally, extending only a short distance above eye. Hair rather blunt, shorter along middle, becoming long and fine ventrally. Posterior margin of eye not quite plane, very shallowly concave, upper facets strongly enlarged in males. Front reduced to a minute

triangle in front of antennae in male, slightly raised on upper half and vertex in female, a shallow transverse depression in front of antennae.

Antennae attached at upper fifth of head and rather large, elongate and slender. First segment slightly longer than second, bearing numerous, rather long, coarse bristles and bristly hairs on all sides, longer laterally and below. Second segment, slightly widened apically has shorter but similar bristles on all sides. Third segment slender, spindle-shaped, base knobbed, outer half attenuate, with two small microsegments and bristle at tip.

Thorax: longer than wide, rather convex; head slightly drooping. Mesonotum opaque black with dense, brown pollen and dense, fine, erect pile of no great length. Notopleuron with four slender bristles, postalar callosity with many long, fine, slender bristly hairs. Scutellum clothed like mesonotum with fine, long hairs on margin. Pleuron densely pilose including propleuron, whole of mesopleuron and metapleuron; pteropleuron and anterior hypopleuron bare.

Legs: all legs slender. All femora with fine fringe of very slender, long hairs ventrally. Bristles absent, although in some species hairs on hind femur slightly thicker. Femora also covered with flat-appressed, long slender scales or scaliform pile.

Wings: long and slender, subhyaline, tinged with pale brown anteriorly and basally. Two submarginal cells, first posterior cell very slightly narrowed. Anal cell widely open, anterior crossvein entering discal cell near outer fourth, hence first basal cell much longer than second.

Abdomen: elongate, distinctly narrowed, tapered and compressed posteriorly. More than $1\frac{1}{2}$ times as long as mesonotum, scutellum excepted. Seventh tergite and corresponding sternite form a long cone in female, about as long as wide and obtuse apically. Color black, opaque in females with dark to light brown pollen and with appressed, glittering, somewhat flattened hair over middle and some erect, moderately long, loose, scattered, yellow hairs basally, changing to fine, erect, black hairs along posterior margins of apical tergites. Curled over side margins of first four or five tergites with long, conspicuous, dense, erect, yellow or sometimes reddish or whitish pile in female.

Male abdomen similar in form but different in pile. In some species male has first two tergites opaque white across middle and opaque across middle of fifth tergite. Some have only fifth tergite pale. Pile of male dense, fine and erect and tending to form bands across middle on posterior margins of tergites. Sixth and seventh tergites of male with dense, expanded conspicuous tuft of hair; curled over lateral margins with very dense hairs. Male terminalia asymmetrical and recessed.

Male abdomen opaque black, with fine, erect, brownish-yellow pile, except entire fifth tergite which is opaque grayish-white, with whitish pile.

Holotype: a male, allotype, a female, and one male and one female paratype, from Nova Teutonia, Brazil (Fritz Plaumann), in Hull collection.

Euprepina shannoni, n. sp.

This species differs from *Euprepina nuda*, n. sp. in the distinctly much shorter, less slender proboscis, the more dense and more brownish pile of the abdomen, the less narrowed discal cell, and the somewhat larger size.

Holotype: a male, and 9 paratype males, from Rio de Janeiro, alt. 2000 ft. March 1941, R. C. Shannon. Also one paratype male from

Rocha, Uruguay. Holotype in U.S. National Museum. Paratypes in U.S. National Museum and Hull collection. Named in honor of an early friend and enthusiastic dipterist.

Euprepina bicincta, n. sp.

This species is distinct in the presence of a second, opaque grayish band lying over the greater part of the second tergite. The sides and posterior border of this tergite are opaque brownish black; the gray band notched in the middle. Anterior border of wing tinted with brown as far as the end of the auxiliary cell. End of marginal cell similar to *nuda*, n. sp. and anal cell also opened widely, but discal cell much more blunt and widened apically. Length of proboscis similar to *shannoni*, new species.

Holotype: a male, allotype a female, a paratype of each sex; from Nova Teutonia, Brazil. In the Hull collection.

Euprepina truxalia, n. sp.

Much like *shannoni*, n. sp. but with the marginal cell much widened, and anal cell open but much narrowed. Fore margin of wing tinted brown. Second abdominal tergite black but with a conspicuous band of rather dense, erect, contrastingly pale, whitish pile. Proboscis longer and slender, much as in *nuda*, n. sp.

Holotype: a male. 24 kil. E. of Formosa, Go., Brazil. F. S. Truxal, May 28, 1956. Type in Los Angeles County Museum. Species named for Dr. Truxal.

Euprepina knutsoni, n. sp.

Very different from other species. The fifth tergite similar to *nuda*, n. sp. but the second has a very narrow distinct cross band, opaque gray, just before the hind border; it is notched in the middle. The brownish abdominal pile is distinctly sparse. The anal cell is narrowly open and the wing faintly tinted with reddish villi. Apex of marginal cell as in *nuda*, n. sp.; but apex of discal cell wider. Proboscis comparatively long and slender.

Holotype: a male, from Copinota, Bolivia. 1918. Type in the U.S. National Museum. Named for Dr. Lloyd Knutson.

Euprepina maracajula, n. sp.

Similar to *nuda*, n. sp. and like it with virtually hyaline wings. End of marginal cell similar. Abdomen similar. The pile of the abdomen is fine, scanty and pale, quite unlike *shannoni*, n. sp. There are fewer spines on the sides of the hind tibia, the anal cell is much narrowed, the abdominal pile is quite pale yellow for the most part, but reddish across tergite three, and the proboscis is shorter than in *nuda* and more like *shannoni*.

Holotype: Maracaju, Matto Grosso, May 1937. R. C. Shannon. Also two paratype males. Holotype in U.S. National Museum.